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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,031	11/07/2001	Lonzell Graham	03549.0066-01	4761

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EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1771

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DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,031

Applicant(s)

GRAHAM ET AL.

Examiner

Elizabeth M Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. Applicant's election with traverse of Group II is acknowledged. Applicant's traversal of the restriction requirement is persuasive and therefore the non-elected claims are rejoined. An action on all pending claims follows.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 26-31, 34, 36-37, 40-41, 48, 50, 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiefer et al, U.S. Patent No. 4,938,888 in view of Brown, U.S. Patent No. 4,953,250. Kiefer et al discloses laundry sheet which has a dry, non-tacky feel, comprising a nonwoven substrate which is impregnated with a detergent composition. The sheet is made by the method of providing a nonwoven substrate such as a polyester substrate and applying a slurry comprising a surfactant and a builder to the substrate and evaporating the residual moisture in the slurry by evaporation to form the laundry sheet. See example 1. The composition may be applied via slot die extrusion, reverse role coating, dip and squeeze techniques or other known methods. The residual moisture may be evaporated by air flotation, conventional convection drying, infrared drying and microwave drying. See col. 5, lines 32-44. The surfactant may be an anionic, nonionic or amphoteric surfactant. See col. 3, lines -63. The builder may comprise polycarboxylate, as well as the sodium and potassium salts of pyrophosphate, orthophosphate, tripolyphosphate, carbonate, bicarbonate, silicate sesquicarbonate, borate and aluminosilicate.

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Organic builders include the sodium and potassium salts of citric acid, nitrilotriacetic acid, tartrates, oxidisuccinates, carboxymethoxysuccinates, and mixtures of these materials. See col. 4, lines 1-35. Kiefer et al does not disclose employing a needled nonwoven substrate. Brown teaches that needling a nonwoven material which will be used as a substrate to which detergent compositions are applied enhances the ability of the substrate to hold the detergent composition by providing voids within the fabric as well as strengthening the nonwoven by mechanically interlocking the fibers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have needled the nonwoven substrate of Kiefer et al. One of ordinary skill in the art would have been motivated to needle the substrate of Kiefer et al by the teaching of Brown that needling enhances the ability of a nonwoven substrate to be loaded with a detergent material by increasing the void space in the fabric while at the same time increasing the strength of the fabric by mechanically interlocking the fibers

4.. Claims 32-33, 35-38, 42, 44-46 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiefer et al in view of Brown as applied to claims 26-31, 34, 36-37, 40-41, 48, 50, 52-53 above, and further in view of Flesher, U.S. Patent No. 4,170,650. Kiefer sets forth a laundry sheet as set forth above. Kiefer does not disclose the inclusion of additional components such as bleaching agents, bleaching agents, soil suspending agents, corrosion inhibitors, dyes, filler, optical brighteners, suds suppressing agents, germicides, pH adjusting agents, antiwrinkling agents, enzymes, enzyme stabilizing agent and perfumes, and does not disclose all the claimed surfactants. Flesher et al discloses a laundry sheet comprising a substrate

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sheet such as a foam, woven or nonwoven material and a detergent applied to the substrate. The nonwoven substrate may comprise polyester fibers. The detergent may comprise a surfactant such as a nonionic surfactant, an anionic surfactant, and amphoteric surfactant or combinations thereof. The detergent may further comprise a builder, bleaching agents, soil suspending agents, corrosion inhibitors, dyes, filler, optical brighteners, suds suppressing agents, germicides, pH adjusting agents, antiwrinkling agents, enzymes, enzyme stabilizing agent and perfumes. Suitable surfactants include those claimed. The surfactant may consist essentially of a nonionic surfactant and an anionic surfactant, (see col. 14, lines 29-33, and example 1). The nonionic surfactant includes those claimed, (see col. 9, lines 13 - col. 10, line 43). Suitable anionic surfactants include those claimed, (see col. 8, line 3 - col. 9, line 9). The detergent may further comprise zeolite, carbonate, borate, sodium carbonate, quaternary ammonium compounds, sodium polysilicates. With regard to the claimed amount of surfactant employed per square inch, Flesher teaches at substrates may be within the range of 3 X 4 inches up to 15 X 15 inches and that the detergent may be present in an amount of 3-120 grams. Therefore, the amounts employed by Flesher et al encompass the claimed range. Additionally, Flesher et al teaches that the amount of detergent may be varied in order to arrive at an amount which would be effective. See col. 14, lines 19-28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the additional components such as bleaching agents, soil suspending agents, corrosion inhibitors, dyes, filler, optical brighteners, suds suppressing agents, germicides, pH adjusting agents, antiwrinkling agents, enzymes, enzyme stabilizing agent and

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perfumes and the additional surfactants disclosed by Flesher et al to the laundry sheet of Kiefer. One of ordinary skill in the art at the time the invention was made would have been motivated to include these additional components in the laundry sheet of Kiefer in order to impart additional improved properties such as bleaching, improved cleaning ability, etc., to the Kiefer laundry sheet.

5. Claims 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiefer et al in view of Brown and Flesher as applied to claims 32-33, 35-38, 42, 44-46 and 51 above, and further in view of Hagner et al, U.S. Patent No. 4,113,630. Flesher teaches a laundry sheet as set forth above. Flesher et al differs from the claimed invention because Flesher et al does not teach that the quaternary ammonium compound should contain at least one polyethoxy or polypropoxy side chain sufficient to keep a 1% solution of the quaternary ammonium compounds soluble in water at approximately 25 degrees C. However, at col.9, line 39 -col. 10, line 29, Hagner et al teaches that the solubility of a quaternary ammonium component should be controlled so as to give a mixture solubility in water of less than 50 ppm at 25 degrees C and that the quaternary ammonium compound may comprise alkoxy groups. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have controlled the solubility of the quaternary ammonium component in the detergent composition of Flesher et al in order to produce a mixture having the desired solubility. One of ordinary skill in the art would have been motivated to control the solubility of the quaternary ammonium component in order to enhance the efficacy of the compound in the detergent.

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6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiefer et al in view of Brown and Flesher as applied to 32-33, 35-38, 42, 44-46 and 51 above, and further in view of Moschner, U.S. Patent No. 5,196,139. Flesher discloses a laundry sheet as set forth above. Flesher differs from the claimed invention because, although Flesher does teach employing brightener, Flesher does not teach employing the claimed brightener. Moschner teaches that the claimed brightener is a well known for use as a brightening agent in laundry sheets. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the brightener disclosed by Moschner in the composition of Flesher because the brightener is well known in the art as suitable for use as a brightening agent for use in laundry sheets.

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiefer et al in view of Brown and Flesher as applied to claims 32-33, 35-38, 42, 44-46 and 51 above, and further in view of Hani et al, U.S. Patent No. 5,298,249. Flesher discloses a laundry sheet as set forth above. Flesher differs from the claimed invention because although Flesher does teach employing a biocide, Flesher does not teach employing sodium omadine. Hani et al teaches that sodium omadine is known to be useful as a biocide which can be incorporated into detergents. See example 8. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed sodium omadine as the biocide in the Flesher detergent. One of ordinary skill in the art would have been motivated to employ sodium omadine because Hani teaches that it is well known as a biocide for use in detergents.


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.


Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c
May 16, 2002